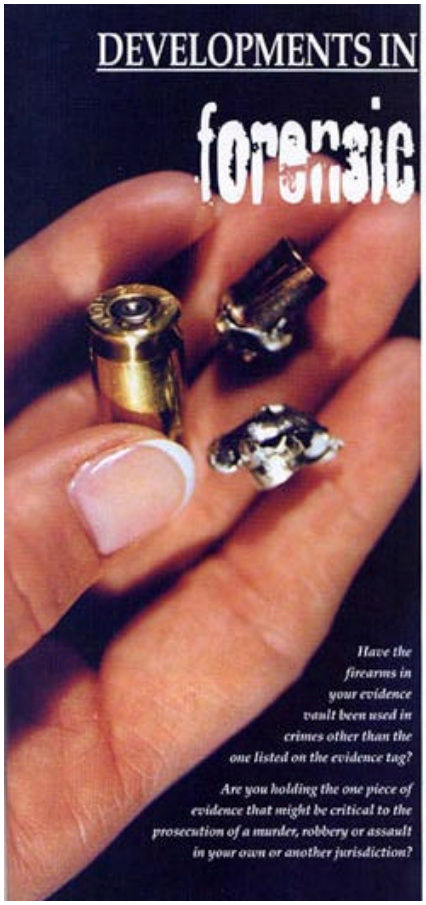

The National Integrated Ballistics Information Network

By Special Agent Tracy Hite, Bureau of Alcohol, Tobacco and Firearms, Washington, DC

In the last decade, the marriage of technology and the work of an expanding cadre of trained forensic examiners and technicians have recast ballistic examination. Like fingerprints, every shell casing and bullet expelled from a firearm is marked with unique impressions. Until recently, the microscopic comparison of these unique impressions was done manually by the firearm examiner.

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Today's technology

Forensic ballistics took a giant leap forward in the early 1990s. The development of two automated computer-based systems, the **Bureau of Alcohol Tobacco and Firearm's (ATF's) Integrated Ballistics Identification System (IBIS**) and the FBI's Drugfire, magnified the value of ballistics and opened laboratory doors across jurisdictional lines. Both systems digitize the unique impressions on shell casings or bullet fragments from current firearm investigations and rapidly compare the images with thousands of images of previously recovered evidence, resulting in "cold hits." Cold hits are linked investigations that would not be connected through traditional investigative techniques. This allows shell casings and bullets involved in separate crimes committed in the same or different cities to be linked. Crime evidence, casings and bullets can be matched to recovered firearms. The two systems were introduced in the early 1990s in a few laboratories across the country. There are now approximately 225 sites that together contain more than 800,000 images. These systems have produced more than 8,000 matches in more than 16,000 cases. Although both systems digitally analyze and store images, in the 1990s the databases were not interoperable.

Interoperable Problem Solved

In the spring of 1997, ATF and the FBI agreed to work to solve the interoperability problem of the systems. A representative from a local law enforcement agency joined members of ATF and the FBI to form the National Integrated Ballistics Information Network (NIBIN) Board. In Decernber 1999 the NIBIN Board announced that to two agencies would coordinate their efforts and merge the best of both systems, bringing to law enforcement the latest technology for ballistic examination.

ATF will have overall responsibility for all system sites and the FBI will establish and maintain a secure high-speed communications network. The resulting single, unified system will form the backbone of a network eventually capable of identifying the individual fingerprint left by virtually every gun used in a violent crime.

Tracing Firearms

ATF's National Tracing Center traces the origin and ownership of recovered firearms used in crimes and is constantly expanding electronic links with local law enforcement agencies. Federal, state and local law enforcement agencies and law enforcement

agencies from other coun tries can request information from the ATF database of recovered and traced firearms. Firearms-tracing statistics are maintained for each state, and investigative leads on persons such as unlicensed firearms dealers engaged in suspicious gun trafficking activity are furnished to the law enforcement community. The National Tracing Center is also the main repository of records of federal firearm dealers who are no longer in business.

National Firearms and Toolmark Examiners Academy

ATF estimates that there are fewer than 600 qualified firearm examiners in the United States. Their professional status, the need to have more examiners and the need to replenish refiring experts, as well as quality assurance and consistent standardized training, have been discussed by professional organizations such as the Association of Firearm and Toolmark Examiners (AFTE). To meet these needs, ATF recently established the ATF National Firearms and Toolmark Examiners Academy for training in the forensic firearm examination discipline. The establishment of the academy is a direct result of ATF's development of the NIBIN enforcement strategy aimed at reducing firearms related violence.

The ATF National Firearm and Toolmark Examiners Academy is a 12-month program, with 16 weeks completed at the ATF National Laboratory in Rockville Maryland. The academy is designed for entry-level examiners and those with less than a year on the job. Costs associated with travel, per diem, uniforms and classroom materials during the 16 weeks of classroom and laboratory instruction are borne by ATF. For more information, contact **Glen Beach, ATF Academy Coordinator** at 301-217-5791 or gtbeach@atfhq.atf. treas.gov.